

## Title: An In-the-Wild Study of Service Robot Behavior at a Community Library.

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### Study Description

This in-the-wild study explores how people in a public library interact with a semi-autonomous service robot named Lexi. Lexi is designed as a humanoid to assist users by providing navigation support and book recommendations through a touch screen and voice prompts. The robot operates proactively: it approaches individuals who appear idle or disoriented and offers help. If the person agrees, Lexi guides them to a relevant library section (e.g., Children's Books, Fiction, Reference) and then recommends a list of books once they arrive. If the person declines, Lexi thanks them and moves on to find someone else.

The deployment lasted for 3 days, during which 57 individuals interacted with Lexi. This report presents a qualitative subsample of 10 participants, selected for diversity in age, background, and behavioral responses. Each was interviewed shortly after their interaction with Lexi, with a focus on understanding how their identity and situational context shaped their interpretation of the interaction.

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### Participant Interviews (N = 10)

*All interviews were conducted post-interaction using semi-structured prompts.*

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#### Participant 1 — Sofia

**Age:** 28

**Gender:** Female

**Profession:** Librarian

**Researcher:** Can you tell me what happened when the robot approached you?

**Sofia:** Yeah, I've seen it around before, so I wasn't too surprised. When it asked if I needed help, I figured why not? I was heading to the Reference section anyway. It pointed me in the right direction, and I followed. Honestly, I just appreciated not having to interrupt one of my coworkers — they're usually pretty busy.

**Researcher:** And what about when it showed you book suggestions?

**Sofia:** Oh, I didn't really look. I already knew what I was after, so I just smiled and moved on. It was a nice touch, though.

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### **Participant 2 — Amir**

**Age:** 65

**Gender:** Male

**Profession:** Retired Engineer

**Researcher:** Tell me about your interaction with the robot.

**Amir:** It startled me, to be honest. I didn't hear it clearly — my hearing isn't great — and it just started talking. I didn't know what it wanted, so I ignored it and kept walking.

**Researcher:** Did it try to interact with you again?

**Amir:** Yeah, it kind of followed me a bit and said something about books, I think. But by then I was already looking for a staff member. I prefer speaking to people, especially if I'm not sure what the machine is doing.

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### **Participant 3 — Maya**

**Age:** 17

**Gender:** Female

**Profession:** High School Student

**Researcher:** How did you feel when the robot came up to you?

**Maya:** It was so cute! I didn't actually need help, but I said yes anyway just to see what it would do. It led me somewhere and stayed beside me — kind of like a little pet or something.

**Researcher:** Did you look at the books it suggested?

**Maya:** Yeah, it showed me some teen fiction. I didn't pick any, but it was fun. I like that it talked — it made the whole thing feel more interactive. I'd do it again just for fun.

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### **Participant 4 — Eli**

**Age:** 33

**Gender:** Non-binary

**Profession:** Software Developer

**Researcher:** Walk me through what happened when the robot approached.

**Eli:** I was on a call at the time, and it didn't seem to recognize that. It just started talking. I

waved it off, but it kept prompting me. It kind of made the situation more awkward than it needed to be.

**Researcher:** And how did it go when it recommended books?

**Eli:** I was trying to concentrate on my phone call, and it interrupted again. I didn't really engage. It felt like it wasn't aware of my need for space or focus, which made it frustrating.

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### **Participant 5 — Linda**

**Age:** 43

**Gender:** Female

**Profession:** Parent of 3

**Researcher:** What happened during your interaction with the robot?

**Linda:** Well, I had my toddler with me, so I was already juggling a lot. The robot rolled up and tried to help, but honestly it was a bit of a distraction. My kid got excited and wanted to follow it around, which wasn't ideal because I needed to use the washroom.

**Researcher:** Did you find the book suggestions helpful?

**Linda:** It showed me some kids' books, which was nice in theory. But I was overwhelmed already, and I couldn't focus on what it was saying. It just wasn't the right time for that kind of interaction.

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### **Participant 6 — Tom**

**Age:** 22

**Gender:** Male

**Profession:** University Student

**Researcher:** Can you describe how the robot interacted with you?

**Tom:** Yeah, it was cool. I was actually looking for a specific book and didn't want to wait at the desk. The robot offered help, and it took me right to the section. Super efficient.

**Researcher:** Did you explore the book suggestions afterward?

**Tom:** I did. One of them looked interesting, so I took a photo of the cover. I'd definitely use the robot again if it saves me time.

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### **Participant 7 — Daniela**

**Age:** 31

**Gender:** Female

**Profession:** Grad Student (Sociology)

**Researcher:** How did you feel when the robot offered to help?

**Daniela:** I wasn't really lost, but I didn't want to seem rude, so I said yes. It felt like saying no might "offend" the robot, even though I know that makes no sense. It's weird — I treat it like a person even though I know it's not.

**Researcher:** And what did you do with the book recommendations?

**Daniela:** I didn't really want any, but I scrolled through them a bit. Honestly, I was more interested in seeing how the interface worked than the actual books. Like, I was kind of analyzing it in my head.

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### **Participant 8 — Caleb**

**Age:** 52

**Gender:** Male

**Profession:** Custodian

**Researcher:** Did you accept the robot's navigation help?

**Caleb:** I did, yeah. I knew where I was going, but I figured I'd give it a shot. But honestly, it went slower than I would've liked. I walked ahead of it eventually.

**Researcher:** How did the book suggestions go?

**Caleb:** I didn't really pay attention. I think I tapped a few buttons. Not much use to me, but it was harmless. I guess I didn't mind it being there — just wouldn't rely on it.

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### **Participant 9 — Nia**

**Age:** 39

**Gender:** Female

**Profession:** Public School Teacher

**Researcher:** Tell me about your interaction.

**Nia:** At first I thought it was great — very futuristic. I let it guide me even though I wasn't in a rush. But when it started showing books, I felt kind of... judged? Like it was trying to predict

what I'd like based on where I was. I know it's just programming, but it rubbed me the wrong way.

**Researcher:** So what did you do?

**Nia:** I clicked out of it. It's hard to explain — I liked the idea of it, but not how it was executed.

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## **Participant 10 — Marcus**

**Age:** 24

**Gender:** Male

**Profession:** UX Designer

**Researcher:** What happened when the robot approached?

**Marcus:** It was smooth, actually. I didn't need help, but I was interested in how it handled the interaction. I tried a few responses just to see what it would do. Honestly, I was low-key testing it.

**Researcher:** Did the book suggestions interest you?

**Marcus:** I didn't care about the books — I was more focused on how the interface responded. I took a video actually, for reference.